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EXAMINER
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YU, ROYTT

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* FARHAD M. LIMONADI

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Appeal 2017-004550  
Application 13/763,407  
Technology Center 2600

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Before JOHN A. JEFFERY, BRUCE R. WINSOR, and  
JUSTIN BUSCH, *Administrative Patent Judges*.

WINSOR, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134(a) from the final rejection of claims 1–8, 10–12, 18, 21–23, and 25–32, which constitute all the claims pending in this application.<sup>1</sup> We have jurisdiction under 35 U.S.C. § 6(b). Claims 9, 13–17, 19, 20, and 24 are cancelled.

We reverse and institute a new ground of rejection under the provisions of 37 C.F.R. § 41.50(b).

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<sup>1</sup> As discussed more fully below, we base our opinion on the claims presented in the Amendment and Response after Final Action (After Final Amend. 2–6), rather than those presented in the Claims Appendix in the Appeal Brief (App. Br. 13–16).

## STATEMENT OF THE CASE

Appellant's disclosed "invention relates to . . . warning a user about undesirable motion of a first portion of the user's body relative to a second portion of the user's body." Spec. 1:10–12. Claim 1, which is illustrative, reads as follows:

1. An apparatus for warning a user about motion of a first portion of the user's body relative to a second portion of the user's body, comprising:
    - a first sensor mountable on the first portion of the user's body and configured to measure an angle of the first portion of the user's body relative to a reference;
    - a second sensor mountable on the second portion of the user's body and configured to measure an angle of the second portion of the user's body relative to the reference;
    - a controller in communication with the first and second sensors;
    - a warning mechanism in communication with the controller;
- wherein the controller determines a difference between the angle of the first portion of the user's body and the angle of the second portion of the user's body indicative of an amount of movement of the first portion of the user's body relative to the second portion of the user's body, and activates the warning mechanism when the difference is beyond a predetermined angle relative to the reference.

The Examiner relies on the following prior art in rejecting the claims:

McTeigue et al.	US 5,221,088	June 22, 1993
McGorry et al.	US 5,772,610	June 30, 1998
Aruin	US 6,234,982 B1	May 22, 2001
Jansen	US 2004/0073987 A1	Apr. 22, 2004
Lu	US 2008/0091082 A1	Apr. 17, 2008

Little et al.	US 2009/0135009 A1	May 28, 2009
Ikoyan	US 2011/0063114 A1	Mar. 17, 2011
Wass	US 2011/0073450 A1	Mar. 31, 2011
Takasugi et al.	US 2012/0179418 A1	July 12, 2012

Claim 9 was rejected under 35 U.S.C. § 112, first paragraph,<sup>2</sup> as failing to comply with the written description requirement. *See* Final Act. 2–3.

Claim 12 was rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. *See* Final Act. 3–4.

Claims 1–5, 8, 9, 11, and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ikoyan, McGorry, and Takasugi. *See* Final Act. 4–9.

Claim 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Ikoyan, McGorry, Takasugi, and Little. *See* Final Act. 9–10.

Claim 7 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Ikoyan, McGorry, Takasugi, Little, and McTeigue. *See* Final Act. 10–11.<sup>3</sup>

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<sup>2</sup> All rejections are under the provisions of 35 U.S.C. in effect prior to the effective date of the Leahy-Smith America Invents Act of 2011. Final Act 2.

<sup>3</sup> In the header for the rejection of claim 7, the Examiner mistakenly omits Takasugi, which is relied upon in rejecting the base claims. *See* Final Act. 4–10. Appellant responds to the rejections as including Takasugi. *See* App. Br. 11–12. Thus, for purposes of our review, we include Takasugi in the rejection and treat the Examiner’s omission as a typographical or ministerial error.

Claim 10 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Ikoyan, McGorry, Takasugi, and Lu. *See* Final Act. 11–12.

Claims 18, 21–23, 25, 27–30, and 32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ikoyan, McGorry, Takasugi, and Wass. *See* Final Act. 12–15.<sup>4</sup>

Claim 26 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Ikoyan, McGorry, Takasugi, Wass, and Aruin. *See* Final Act. 15–16.

Claim 31 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Ikoyan, McGorry, Takasugi, Wass, and Jansen. *See* Final Act. 16.

Rather than repeat the arguments here, we refer to the Briefs (“App. Br.” filed May 13, 2016; “Reply Br.” filed Feb. 1, 2017), the Amendment and Response after Final Action (“After Final Amend.” filed Nov. 19, 2015), and the Specification (“Spec.” filed Feb. 8, 2013) for the positions of Appellant and the Final Office Action (“Final Act.” mailed Sept. 15, 2015), the Advisory Action (“Adv. Act.” mailed Dec. 18, 2015), and Examiner’s Answer (“Ans.” mailed Dec. 2, 2016) for the reasoning, findings, and conclusions of the Examiner. Only those arguments actually made by Appellant has been considered in this decision. Arguments that Appellant

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<sup>4</sup> In the header for the rejection of claims 18, 21–23, and 25, the Examiner mistakenly (1) refers to the rejection of claims “18, 21–3 and 25” (*see* Final Act. 12); and (2) omits claims 27–30, and 32 that otherwise appear in the body of the rejection (*see id.* at 14–15). We treat the Examiner’s errors as typographical or ministerial in nature.

did not make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(iv) (2015).

#### AFTER FINAL AMENDMENT

Amended claims were submitted by Appellant in the Amendment and Response after Final Action. After Final Amend. 2–6. The Amendment was submitted to, among other things, obviate the rejections under 35 U.S.C. §§ 101 and 112, first paragraph. After Final Amend. 7. Although the USPTO Form PTOL-303 does not indicate entry of the amended claims (Adv. Act. 1, item 7), a copy of the first page of the Amendment and Response after Final Action bearing the annotation “OK TO ENTER: /R.Y./” appears to have been attached to the Advisory Action. *See* Image File Wrapper, “Amendment after Final or under 37 CFR 1.312, initialed by the examiner” entered Dec. 18, 2015. The Examiner does not expressly withdraw the rejections under 35 U.S.C. §§ 101 and 112, first paragraph, but neither Appellant nor the Examiner addresses them further. *See generally* App. Br.; Ans.; Reply Br. The Examiner does, however, state that “[c]laims 1–12, 18, 21–23, and 25–32 stand rejected according to the Final Office Action made on Sept. 15, 2015” (Ans. 2), which did include the rejections under 35 U.S.C. §§ 101 and 112, first paragraph. The claims submitted by Appellant with the Appeal Brief do not reflect the amendments made in the Amendment and Response after Final Action. *Compare* App. Br. 13–16, *with* After Final Amend. 2–6.

Based on the overall record before us, we conclude the claim amendments in the Amendment and Response after Final Action were entered by the Examiner. Accordingly, we base our opinion on the claims

presented in the Amendment and Response after Final Action (After Final Amend 2–6), rather than those presented in the Claims Appendix in the Appeal Brief (App. Br. 13–16).

Claim 9 is cancelled (After Final Amend. 3), rendering all rejections of claim 9 moot. Accordingly, to the extent the Examiner maintains any rejections of claim 9, we reverse *pro forma* the rejections of claim 9 under (1) 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement; and (2) 35 U.S.C. § 103(a) as being unpatentable over Ikoyan, McGorry, and Takasugi. *See* Final Act. 2–4, 8–9.

Claim 12 is rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. *See* Final Act. 3–4. The Examiner finds the term “computer readable storage media” includes both transitory and non-transitory embodiments, and the transitory embodiment is not within the four categories of patentable subject matter. *Id.* at 4. Claim 12, as it appears before us, recites that the computer readable storage media of claim 12 is limited to a “non-transitory computer-readable storage media.” After Final Amend. 4 (underlining omitted). We conclude this limitation obviates the § 101 rejection of claim 12. Accordingly, to the extent the Examiner maintains the rejection, we reverse the § 101 rejection of claim 12 *pro forma*.

## ISSUE

The dispositive issue<sup>5</sup> presented by Appellant’s arguments is as follows:

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<sup>5</sup> Appellant’s arguments present additional issues. However, because the identified issue is dispositive of the appeal, we do not reach the additional

Has the Examiner supported the conclusion of obviousness with articulated reasoning with rational underpinning for the combination of Takasugi with Ikoyan and McGorry?

### ANALYSIS

The Examiner concludes it would have been obvious in a posture training device, including sensors that each measure a user's body angle relative to a same reference and provide a warning if the user's body angle exceeds a threshold, as taught by Ikoyan to incorporate Takasugi's teachings of determining an angle difference among sensors. *See generally* Final Act. 4–6. Specifically, the Examiner concludes “one with ordinary skill in the art would have provided the teachings of Takasugi such as determining the difference between the angle of the first and the second sensors, so that it's an alternative to measure the body posture and provide warning to the user.” Ans. 3; *see also* Final Act. 7. The Examiner further concludes Takasugi provides “a solution to a known problem” because Ikoyan suggests measuring ideal posture angles and Takasugi teaches details of measuring posture angles. Adv. Act. 2.

Appellant contends the combination of Takasugi with Ikoyan and McGorry is improper, arguing Takasugi “lacks any other teaching or suggestion such that one of skill in the art would be motivated to combine Takasugi with the other applied references.” App. Br. 9.

We agree with Appellant's conclusion. At the outset, we note that: evidence of a motivation to combine need not be found in the prior art references themselves, but rather may be found in “the

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issues, except as noted below.



knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved.” . . . When not from the prior art references, the “evidence” of motive will likely consist of an explanation of the well-known principle or problem-solving strategy to be applied.

*Dystar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1366, (Fed. Cir. 2006) (emphases in original, quoting *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999)). Accordingly, the Examiner need not rely on the teachings or suggestions of Takasugi alone to provide a proper motivation to combine Takasugi with the other applied references.

“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). Combining references can even be based on common sense as long as the reasoning is explained sufficiently. *See Perfect Web Techs., Inc. v. InfoUSA, Inc.*, 587 F.3d 1324, 1328–29 (Fed. Cir. 2009). That Takasugi’s angle difference determination providing “an alternative,” as asserted by the Examiner (*see* Ans. 3; *see also* Final Act. 7), to the teachings of Ikoyan does not sufficiently explain, nor is it apparent on the face of the rejection, how the advantages of Takasugi’s angle difference determination would motivate the skilled artisan to combine the teachings of Takasugi with the teachings of Ikoyan. Further, although picking one of a finite number of known solutions to a known problem is obvious (*KSR*, 550 U.S. 398 at 421), the Examiner does not point to, nor do we find, any evidence of a known problem that

Takasugi provides a solution to as asserted by the Examiner. *See* Adv. Act. 2. Indeed, the Examiner's stated rationale for the combination amounts to little more than a finding that all of the recited limitations are found in the prior art. However, as our reviewing court has stated, demonstrating "[o]bviousness requires more than a mere showing that the prior art includes separate references covering each separate limitation in a claim under examination," it "requires the additional showing that a person of ordinary skill at the time of the invention would have selected and combined those prior art elements in the normal course of research and development to yield the claimed invention." *Unigene Labs., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011) (citing *KSR*, 550 U.S. 398 at 418, 421). Therefore, we conclude, at least with respect to the combination of Takasugi with Ikoyan and McGorry, the Examiner has not articulated a reason with rationale underpinnings to support the conclusion of obviousness, *see KSR*, 550 U.S. at 418.

Accordingly, we do not sustain the rejections of (1) claim 1; (2) independent claim 4, which includes a limitation substantially similar to the disputed limitation (*compare* After Final Amendment 2, *with id.* at 2–3) and was rejected on substantially the same bases as claim 1 (*see* Final Act. 4–8); and (3) claims 2, 3, 5–8, and 10–12, which variously depend from claims 1 and 4.

The Examiner rejects independent claim 18 under 35 U.S.C. § 103(a) as being unpatentable over Ikoyan, McGorry, Takasugi, and Wass "in a similar fashion as in rejection of claim 1." Final Act. 12. Accordingly, for the reasons discussed above, we do not sustain the rejections of (4) independent claim 18 which was rejected on substantially the same bases as

claim 1 (*see* Final Act. 12–13);<sup>6</sup> and (5) claims 21–23 and 25–32, which depend from claim 18.

#### NEW GROUND OF REJECTION

We enter a new ground of rejection pursuant to 37 C.F.R. § 41.50(b). Claim 10 is rejected under 35 U.S.C. § 112, second paragraph, as indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 10 depends from cancelled claim 9. Furthermore, we find no antecedent basis for the phrase “the flexible linear potentiometer,” recited in claim 10. As such, the metes and bounds of the claims cannot be determined. Therefore, claim 10 is indefinite under 35 U.S.C. § 112, second paragraph.

#### DECISION

The Examiner’s decision to reject claims 1–8, 10–12, 18, 21–23, and 25–32 under 35 U.S.C. § 103(a) is reversed.<sup>7</sup>

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<sup>6</sup> We note in passing, and without reliance in rendering our decision, that we are persuaded that Wass is non-analogous art, as argued by Appellant. *See* App. Br. 10; Reply Br. 2–3. In particular, we agree with Appellant that Wass, directed to an extender for wall light switches, is not from the same field of endeavor as the claimed invention and is not reasonably pertinent to the problem faced by the inventor. *See In re Klein*, 647 F.3d 1343, 1348 (Fed. Cir. 2011).

<sup>7</sup> In the event of further prosecution, including any review for final allowance, the Examiner and Appellant may wish to consider whether the phrase in claim 1 “difference is beyond a predetermined angle *relative to the reference*” (emphasis added) is indefinite under 35 U.S.C. § 112, second paragraph. In particular, the Examiner and Appellant may wish to consider

The Examiner's decision to reject claim 9 under 35 U.S.C. § 112, first paragraph and § 103(a) is reversed *pro forma*.

The Examiner's decision to reject claim 12 under 35 U.S.C. § 101 is reversed *pro forma*.

We enter a new ground of rejection for claim 10 under 35 U.S.C. § 112, second paragraph, as being indefinite.

This decision contains new grounds of rejection pursuant to 37 C.F.R. § 41.50(b). Section 41.50(b) provides that "[a] new ground of rejection . . . shall not be considered final for judicial review."

Section 41.50(b) also provides that Appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

(1) *Reopen prosecution*. Submit an appropriate amendment of the claims so rejected or new Evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .

(2) *Request rehearing*. Request that the proceeding be reheard under § 41.52 by the Board upon the same Record.

37 C.F.R. § 41.50(b).

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if the difference between two angles relative to a reference can itself be relative to the same reference, as opposed to being a scalar value.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1). *See* 37 C.F.R. §§ 41.50(f), 41.52(b) (2015).

REVERSED  
37 C.F.R. § 41.50(b)